

REMARKS

PETITION FOR EXTENSION OF TIME BY ONE MONTH:

This amendment and response is submitted with a petition for extension of time by one (1) month and the associated fee. Approval of this petition is hereby requested.

THE CLAIMS:

Status:

Claims 1-55 are now presented for examination. Claims 1, 2, 7, 10, 11, 14, 17, 18, 22, 28, and 34 have been amended to recite various aspects of the present invention in better form. Claims 53-55 have been added to further point out various aspects of the invention. No new matter has been introduced by the claim amendments or new claims.

Claim Rejections:

The Examiner rejected claims 1-52 based on new grounds of rejection. Specifically, the Examiner rejected claims 1-18, 22-24, 28-30, 34-36 and 49-52 under 35 U.S.C. §103 as being unpatentable over U.S. Patent 5,838,204 to Yao in view of alleged knowledge in the art. However, Yao does not support these claim rejections because the teachings in Yao do not produce the claimed invention, singly or in combination with the alleged knowledge in the art.

For example, claim 1 recites, in part,

An integrated circuit comprising:
a power supply I/O pad;
an I/O pad of a first type..., wherein each of the power supply I/O and I/O pads has a pad area allocated for it, wherein the power supply I/O pad occupies its allocated pad area but the I/O pad occupies *less than* its allocated pad area, and...;
and
a strip... located alongside the I/O pad of the first type in an unoccupied part of its allocated pad area, wherein... the I/O pad of the first type is *narrower* than the power supply I/O pad in order to make room for the strip.

(emphasis added).

Claims 22, 28 and 34 have analogous recitations of such elements. The practice of various embodiments of the present invention, as recited in the above enumerated claims, will produce various benefits. As pointed out in earlier responses, one such benefit is the reduction in IR (i.e.,

voltage) drops at the logic (See, e.g., Applicants' original disclosure at page 11, lines 15-20). Yet another benefit which was not mentioned before is the avoidance of dedicating additional power connection pins in order to satisfy increased power consumption (, e.g., Applicants' original disclosure at page 11, lines 12-15).

Clearly, as noted by the Examiner, Yao does not teach the above-outlined elements of the claimed invention as recited, respectively, in claims 1, 22, 28 and 34. Indeed, in FIGs. 8-10, Yao shows pads and all of them are of the same size (see, also, Yao at col. 7, lines 64-67). The Examiner suggests combining Yao with alleged knowledge in the art to produce the claimed invention. The Examiner proposes this combination stating that "[it] would have been obvious... for the I/O pad of the first type [to be] narrower than the power supply I/O pad, since the power provides more power to the device" (the Examiner asserts additional arguments, including inherency, which Applicants reserve the right to dispute should it be necessary).

In making this argument, the Examiner appears to confuse a possible basis for the invention and the invention itself. In other words, the invention is based, in part, on the observation that lower power requirements allow for narrower pads; but the invention itself is the implementation of a solution based on this and other observations. The invention, as recited in claims 1, 22, 28 and 34, proposes a solution that involves using different pad sizes and, notably, also using one allocated pad area for both a pad and a strip rather than using it only for a pad.

The combination of Yao with the alleged knowledge in the art (namely, the knowledge that "power provides more power to the device") does not produce element such as using an allocated pad area for both I/O pad and strip (side-by-side). Therefore, the Examiner cannot use hindsight to read into the art ideas gleaned from the invention which the art does not teach.

Indeed, according to the principles of patent law, obviousness is a matter of evidence, an objective inquiry based on the teachings in the sources of evidence, i.e., in the teachings of the art. In this case, there is no evidence in the cited references of using different pad sizes in combination with an allocated pad area for both I/O pad and strip (side-by-side). Alleging otherwise without supportive evidence is not sufficient to make a *prima facie* case of obviousness.

Moreover, because Yao shows that all pads are of similar size it teaches away from and fails to suggest changing the pad size or sharing allocated pad area between pad and strip. This idea came from Applicant's invention not from a combined teaching of Yao and any alleged knowledge in the art; and, by teaching away for the claimed invention, Yao does not suggest or provide any motivation for the proposed combination. Therefore, the proposed combination is improper in addition to failing to produce the claimed invention.

In other words, claims 1, 22, 28, and 34 and their respective dependent claims are patentably distinguishable from the cited art, Yao and the alleged knowledge in the art. Accordingly, these claims are allowable over the cited art.

In the aforementioned Office Action, the Examiner further rejects claims 19-21, 25-27, 31-33 and 37-48 under 35 U.S.C. §103 as being unpatentable over U.S. Patent 5,838,204 to Yao in view of U.S. Patent 6,407,939 to Merritt. However, in view of the arguments above, Merritt does not provide for the deficiencies of Yao, regardless of whether or not it teaches interconnections between layers and the like. Simply stated, the combination of Yao and Merritt does not produce the claimed invention.

For the reasons as outlines above, the cited references do not teach or suggest the claimed invention as recited in claims 1-52. Therefore, Applicants respectfully request reconsideration and withdrawal of the claim rejections under 35 U.S.C. §103.

New Claims:

The arguments above apply to the new claims with equal force and effect. Accordingly, Applicants respectfully submit that claims 53-55 are also allowable over the cited references.

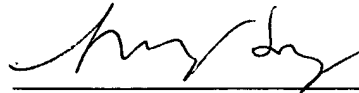
CONCLUSION:

The present application is believed to be in condition for allowance and a Notice of Allowance is hereby respectfully requested. Should any issue remain, the Examiner is kindly invited to contact the Applicant's Attorney at the number listed below in order to resolve all such matters.

The Commissioner is authorized to charge any fee deficiency or credit any overpayment to Deposit Account 50-2778.

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Respectfully submitted



Leah Sherry,
Attorney for Applicants
Reg. No. 43,918

DECHERT LLP

Customer No. 37509

Telephone: 650.813.4800

Facsimile: 650.813.4848

CERTIFICATE OF MAILING (37 CFR 1.8)

I hereby certify that this correspondence is being deposited (along with any paper referred to herein) with the U.S. Postal Service with sufficient postage as first class mail addressed to: Mail Stop Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450, on

Date: February 22, 2005

by



Yvette Yturbe Owen